The Role of the Army Health Nurse in the Maternal Health Program at Army Installations in the United States

by

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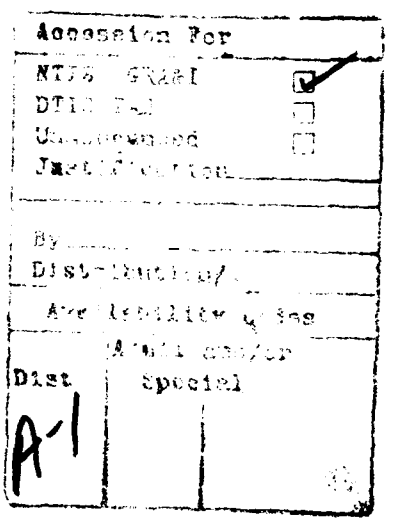
The writer also wishes to acknowledge the contributions of the Army health nurses who completed the study questionnaire, thus making this study possible.



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I. INTRODUCTION

Statement of the problem.-The Army health nursing program was started at Fort Devens, Mass. in 1949. The purpose of the program was to assist in the maternal and child health program, in the prevention of communicable diseases, and in the general care of the soldiers' families who were receiving medical care from Army doctors.[1] When this program proved beneficial, the Army Medical Service assigned Army nurses who had preparation and experience in public health nursing to other installations to initiate the program. They worked under the direction of the post surgeon, the preventive medicine officer, or the chief nurse. In 1955 the first Army health nurse was assigned to the Preventive Medicine Division, Office of the Surgeon General, United States Army to coordinate and to direct the program.

The main objective of the Army health nursing program is to promote the health of the soldier and his family. This includes a large variety of activities, and since most of the installations have one nurse assigned to the program she is able to meet only the most urgent health needs of this group. The nursing program will be influenced by the size, location, and mission of the installation. Due to the prevalence of the child bearing age group in the Army, maternal health service is a component part of the nursing program.

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[1] James P. Peppas, "The Role of the Visiting Nurse on a Military Post," The Bulletin of the United States Medical Department, IX (July, 1949), p. 564.

Every Army health nurse submits a monthly report to the Army area headquarters. The content of the reports varies in the six Army Areas in the United States. This makes it difficult to learn how the Army health nurse participates in the various aspects of the program. The writer, who is an Army health nurse, anticipates that this study will be helpful to her understanding of the maternity program and will aid her in future program planning.

Purpose of the study.-The main objective of this study is to learn how the Army health nurse contributes to the maternal health program. The secondary objectives are:

1. to learn who assists in planning the maternal health program,
2. to learn the activities of the Army health nurse in the maternal health program,
3. to learn who receives Army health nursing service in the maternal health program,
4. to learn what proportion of the Army health nursing program is devoted to maternal health,
5. to learn if a relationship can be identified between the type of experience the Army health nurse had prior to entering the Army, and the type of activities she performs in the maternal health program.

Method of study and universe.-A questionnaire consisting of forty-one questions was prepared to learn the role of the Army health nurse in the maternal health program at the Army installations in the United States.[1]

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[1]See Appendix, Exhibit B.

The questionnaire was pretested by two of the writer's classmates; one an Army health nurse and the other a member of the Army Nurse Corps Reserve who had spent two weeks on active duty in an Army health nursing program.

The names and addresses of the Army health nurses were obtained from the Office of the Surgeon General, United States Army. There were thirty-five installations with Army health nursing programs; of these installations there were two which had more than one nurse assigned to the program.

The questionnaire with a letter[1] explaining the purpose of the study was mailed on January 27, 1957. The writer asked for the questionnaire to be returned by February 9, 1957. By February 18, 1957, twenty-six questionnaires were returned. On this date the writer mailed a follow-up letter[2] to those who had not replied. By March 1, 1957, thirty-four questionnaires were returned, making ninety-seven percent returns.

Reason for method and limitation of study.-The interview method would have been more satisfactory for the collection of data, but time, distance, expense, and lack of personnel made it impossible to do personal interviews.

The study is limited to fact finding because the writer believes she could not adequately evaluate other aspects of the program by the mail questionnaire method.

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[1] See Appendix, Exhibit A.

[2] See Appendix, Exhibit C.

Problems of method.-The first problem encountered in this method was designing questions for a mail questionnaire. Parten states that mail questionnaires should be "as short as possible to get all the information needed for the survey."[1] In order to keep the questionnaire short the questions were limited to those which were most pertinent to the objectives. Consequently, some questions which would have been helpful in making the study more complete and interesting were eliminated.

Another problem was in making the questions simple, self explanatory, and framed so as not to be antagonistic to the respondent.

Finding people to pretest the questionnaire also proved to be a problem. The writer wanted to include all thirty-five installations in the study, so none of the Army health nurses could be used for pretesting. It was decided that two classmates who were familiar with the program would be sufficient. However, this did not prove to be true. Evidently, one question was misinterpreted by some respondents because the answer did not correlate with another related question.

A letter[2] for further clarification of this question was mailed on March 4, 1957 to those whom the writer believed had misinterpreted the original question. All letters were answered with the desired information.

Definition of terms

Army health nurse - a member of the Army Nurse Corps who has had preparation and experience in public health nursing, and who is assigned

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[1]Mildred B. Parten, Surveys, Polls and Samples (New York: Harper Bros., 1950), p. 385.

[2]See Appendix, Exhibit D.

to the Army health nursing program.

Installation - "real estate and improvements thereon under the control of the Department of the Army at which functions of the Department of Army are carried on..."[1]

Surgical technician - an enlisted person doing work requiring special training in nursing procedures with emphasis on aseptic technic.

Medical specialist - an enlisted person who has graduated from an Army school of practical nursing.

Brides from other countries - women born and reared in foreign countries who have married soldiers in the United States Army.

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[1]United States Army, Dictionary of the United States Army Terms, (Wash. Dept. of Army, 1953), p. 150.

II. REVIEW OF RELATED LITERATURE

A review of some of the literature reveals that public health nursing in the maternal health program was first recorded at the turn of the century in this country. Since then the public health nurse's contributions to maternal health has been demonstrated time and time again. Both in home visits and in clinic visits she has emphasized the importance of early and continuous medical care, interpreted the physicians instructions to the patient and family, reported signs and symptoms to the physician, assisted in relieving anxieties and fears of the mother and family, and has given instruction in child care and development.[1]

Some of the functions of the public health nurse in staff positions which were adopted by the American Nurses Association in 1956 are:

> Public health nurses, including school nurses and those in other specialties in public health nursing, work as members of a health team to further community health. They provide nursing care and treatment, health counseling, and organize families and community groups for health purposes. Their activities include work in the home, clinic, office, school or health center. In all phases of the work emphasis is placed on the prevention of disease, the promotion of health, and rehabilitation measures.
>
> Functions must reflect trends in public health nursing and education as well as changing community needs.....Because of the impact of health education programs, including extensive health information appearing in newspapers and magazines and on radio and television, the public expects more intensive and individualized health instruction and care from nurses. At the same time developments in

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[1]Penelope K. Hope, "How the Public Health Nurse Assists The Obstetrician in the Care of his Patients," The Bulletin of Maternal Health, (July, August, 1956), p. 16.

> group dynamics and in the mass media field have opened new avenues for health teaching. The concept of health, including emotional and social well being, adds new dimensions to the mental health and counseling components of nursing. ...
>
> ... The nurse will share planning and action with workers from health, education, welfare and citizens groups. In varying combinations the pattern of service team will change to include the personnel and professional points of view that are needed to plan for and to implement the program in a particular situation. Coordination with all other appropriate personnel is implicit in the functions of public health nursing and, depending on the situation, the nurse may at various times assume more or less responsibility for initiative and leadership.[1]

The Army health nurses responsibilities in relation to the maternal health program are stated in Army Regulation 40-551 as:

> b. Teaching and counseling in family health including that of prenatal, maternal and child health by conducting classes, demonstrations, group discussions, interviews and conferences.
>
> . . . . . .
>
> d. Assisting in solving physical, emotional and economic problems effecting family health and welfare by arranging for proper treatment or referral to the appropriate agency on or of the installation.
>
> . . . . . .
>
> g. Establishing and maintaining liaison with the local civilian public health nursing services and other health and welfare agencies on matters relating to the Army health nursing program.[2]

By this regulation one can readily see that the role of the Army health nurse in the maternal health program would vary very little from that of the public health nurse in civilian life. With the acceptance of this statement, the writer believes that any literature relating to public health nursing in maternal health can be related to Army health

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[1] American Nurses' Association, Public Health Nurses Section, "ANA Statements of Functions, Standards, and Qualification", A.J.N., LUI (Oct., 1956), p. 1305.

[2] United States Army, A.R. 40-551, (Wash., Dept. of the Army, 1955).

nursing in maternal health.

The public health nurse makes one contribution to maternal health by assisting in the antepartal clinic. Gold et al gives the following activities for nurses participating in antepartal clinics:

> Interval history taking and interpretation of the physicians medical recommendations; individual and group counseling of the patient regarding the physiological principles of antepartal hygiene and nutrition; assaying the patients emotional attunement to the pregnancy as it relates to her social, economic, and familial environment, screening patients' records for initiation of referrals to intra-hospital departments and extra hospital community agencies.[1]

They also recommend that to give continuity of service the clinic should be under the supervision of the maternity nursing supervisor if the clinic is located in the hospital.

These functions are much the same as those recommended in 1942 and 1943 by the N.O.P.H.N. which also states that public health nursing service in clinic "is essential only if teaching ... is a planned part of the clinic procedure."[2]

Freeman[3] emphasises that clinic attendance should be a learning experience for every patient. This can be accomplished by formalised group conferences, demonstrations before clinic starts, or by individual conferences after the patient is seen by the doctor. These individual conferences should not pertain only to interpreting findings and recommendations of the clinic visit, but to meet the needs of the patient and

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[1]Edwin Gold, Margaret A. Lasty, and Helen M. Wallace, "A Blue Print for Changing Concepts in Antepartal Care," Am. J. Pub. H. (July, 1950), pp. 793-795.

[2]Hortense Hilbert, "Public Health Nursing Services in Clinics", PHN, XXXVI (May, 1944), p. 212.

[3]Ruth B. Freeman, Public Health Nursing Practice, (Phila. W. B. Saunders Co., 1950), pp. 251-252.

her family in the same way as the nurse would in making a home visit.

In many respects the plan of giving instructions and counseling in the home is more satisfactory than in the clinic. The patient may feel rushed or confused in the clinic and will not understand instructions; or she may feel that the doctors and nurses are too busy to answer her questions. Whereas, in the home she may be more relaxed and will be able to understand instructions and to express her fears and anxieties. Gold et al states, "Ideally, every antepartal patient should be visited in the home by a public health nurse to instruct and prepare the patient. If in this era of nursing shortage selection must be made, it is recommended that all antepartal patients with incipient serious complications be visited in the home."[1]

Young, in a study being made in Halifax County, North Carolina, grades patients conditions as being good, fair, and poor according to the obstetrical history and physical findings. Patients who are graded fair and poor are to have more frequent visits to the clinic and intensive follow-up through home visits by the public health nurse. The determining factors from the obstetrical history are:

A grade of "fair" is based on any one or a combination of the following factors:

1. Seven or more deliveries.
2. One abortion.
3. A history of any single complication other than toxemia; for example, hemorrhage (antepartal) or mild hypertension.
4. One premature child living or dead, one fetal death, or one infant death.

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[1]Gold, Lasty and Wallace, Am. J. Pub. H., XL, p. 796.

A grade of poor is based on any one or a combination of the following criteria:

1. Caesarean section.

2. Two or more abortions.

3. History of toxemia.

4. History of two or more other complications.

5. Two or more premature children living or dead, two or more fetal deaths, or two or more infant deaths.

6. A combination of two or more abortions, premature births, fetal deaths or infant deaths.

A grade of "fair" is given when the physical examination reveals the following conditions:

1. More than twenty percent overweight.

2. Blood pressure 140/90 or above.

3. Edema of the feet.

4. Inactive tuberculosis.

5. Any other condition or combination of conditions that, in the examining physician's judgement, would grade the patient's physical condition as fair.

A grade of "poor" is justified when these conditions are present:

1. A combination of elevated blood pressure, increased weight, and edema.

2. Hypertension 150/100 or above.

3. Active pulmonary tuberculosis or syphilis.

4. Edema of the feet and hands, or edema of the face, or both.

5. Organic heart disease.

6. Marked deformity of the spine.

7. Breech presentation.

8. Serious change in fetal heart rate such as inability to hear the fetal heart sounds.

9. Contracted pelvis or any other serious deficiency in the pelvic measurements.

10. Any other conditions that ... would grade the patient's physical condition as poor.[1]

This list may be helpful in determining the need for home visiting but it is not the complete answer. Mental health aspects are being overlooked. Eastman[2] claims that fear should be given first consideration and the nurse can do much in eliminating fear. Many times fears and anxieties will not be observed in a busy antepartal clinic but in the home visit the nurse may become aware of them.

In recent years the trend has been to make fewer home visits to antepartal patients. Jenny[3] finds the reason for fewer home visits is that a larger proportion of mothers are having medical care and plan for delivery in hospitals. She states, "Since public health nursing has never attempted to substitute for medical care in pregnancy, but rather to translate and extend it, it is reasonable to infer that more rather than less nursing service is associated with increased medical supervision."[4]

In a study by Murphy[5] some of the reasons given for fewer home visits are; lack of interpretation to physicians and community of the

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[1]Robert F. Young, "A Scientific Approach to Fetal Wastage in Halifax County, North Carolina," Pub. H. R., LXXI (Nov., 1956), p. 1067-1068.

[2]Nicholas J. Eastman, "The Obstetrician Looks at Maternity Nursing," PHN, XLVIII (Dec., 1946), p. 642.

[3]Martha R. Jenny, "Competence in Maternity Nursing," PHN, XLVIII (Oct., 1951), p. 528.

[4]Ibid.

[5]Marian Murphy, "Implications for Public Health Nursing in Changing Practice in Maternity Care," Am. J. Pub. H., XL (July, 1950), p. 799.

maternity service as part of the health department program, antepartal work is difficult for unprepared public health nurses, nurses find other programs more dramatic, there are pressures from other services, maternal and infant mortality rates are lower, patients are better informed due to instructions from the physicians and increased group instructions.

Group instruction is given in expectant parents' classes, mothers' clubs. Classes were started over a generation ago in the prenatal clinics sponsored by the Maternity Association in New York. Their aims were to give instruction in anatomy and physiology of the reproductive systems, nature of the reproductive process, the physical and emotional changes during pregnancy, labor and puerperium, hygiene and nutrition during pregnancy, the preparation for lactation, and the simple skills needed to give intelligent care to the newborn. One of the greatest changes since the classes were started is the recognition of the psychosomatic approach in any problems of health and disease. Today, the understanding of the emotional components of pregnancy, labor and delivery are being stressed in the classes.[1]

Chisholm says:

> The immediate aim of parents' classes is to develop in both parents a sense of security during the antepartal period, a feeling of accomplishment during labor and delivery with minimum physical and emotional discomfort, and a readiness to care for the baby with confidence and real enjoyment. The ultimate aim is to create attitudes and viewpoints which will influence each family's living long after the baby has outgrown the pink and blue stage.[2]

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[1]Ann Kirchner, "Parents Classes in a Maternity Program," Am. J. Pub. H., XLIII (July, 1953) pp. 896-897.

[2]Rita Chisholm, "Parents' Classes: A Fertile Field for Mental Health Concepts," PHN, XLIV (May, 1952), p. 273.

For years nurses were the leaders in organizing expectant parents' classes and did all the teaching. Recently other disciplines have become interested and we are now seeing a team approach to the program. The psychiatrists are suggesting the need for such teaching with much vigor and they are willing to assist in such a program. Walser[1] suggests that social workers, dietitians, pediatricians, psychologists, psychiatrists, and educators have much to offer. If exercises for preparation for delivery are being taught, it is advisable to have a physiotherapist on the team.

Another trend is away from the straight lecture type of class with the instructor planning the material. Instead the discussion method is being employed in which the material is based and developed around the expressed needs and contributions of the group. The leader's responsibility is one of directing meaningful discussion to develop essential areas which the group may not have introduced.[2]

Expectant parents' classes or group instruction do not meet all the needs of the mother. Lasty et al[3] find that when instructions concerning formula making and infant bathing are given in the hospital few mothers have the opportunity to learn how to feed or handle the infant. Many times the hospital personnel are unaware of the mother's fears and

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[1]Howard C. Walser, "Education for Parenthood," AJN, LII (May, 1952), p. 568.

[2]Aline B. Auerbach, "New Approaches to Work with Expectant Parent Groups," Am. J. Pub. H., XLVII (Feb., 1957), p. 185.

[3]Margaret Lasty, Leona Baumgartner, Harold Abramson, and Samuel Front, "Modernizing Practices in Maternity Hospitals and New Born Services," PHN, XXXVIII (July, 1946), p. 568.

anxieties and the other problems she will encounter when she returns home. Consequently, they do not refer the mother to the public health nurse who is in a position to assist her.

According to Jenny[1] earlier discharge from the hospital makes it more important for early postpartum visits. The return home with a new baby is often a frightening and disillusioning experience for a mother. She may feel she must take charge of the household and full responsibility for the baby. This she is not physically or emotionally ready to do. The public health nurse can contribute immeasurably to the emotional security of the family by giving support, answering the mother's many questions, and giving needed guidance on care of self and infant.

Gilbert[2] suggests another task for the public health nurse in the postpartum home visits is to encourage the mothers to return for a six week pospartum examination. The mother may be feeling well and any possibility of difficulty may seem remote, or she may be ignorant of the reasons for the examination. In a calming and reassuring manner the nurse may interpret the importance of the examination.

Kirkwood says, "Pregnancy is not an isolated incident; it affects the whole life span of woman."[3] To prepare the woman for motherhood the preparation should start with the birth of the baby girl whose mother has had good antepartal care.

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[1]Jenny, PHN, XLIII, p. 529.

[2]Ruth Gilbert, The Public Health Nurse and her Patient, (Cambridge: Harvard University Press, 1955), p. 129.

[3]Samuel B. Kirkwood, "Complete Maternity Care," Am. J. Pub. H., XLVI (Dec., 1956), p. 1549.

It is apparent from the reviewed literature that the public health nurse has many opportunities to make contributions in the maternal health program to help obtain the goal "to see that a healthy child is born to a living, healthy, uninjured mother in a healthy uninjured family."[1]

The Army health nurse is in a position to make comparable contributions. It is the intent of this study to learn more of her role in the maternal health program.

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[1] Ibid.

III. REPORT OF WORK DONE AND RESULTS

A questionnaire was mailed to the Army health nurse at thirty-five installations in the United States which have an Army health nursing program. Thirty-four questionnaires were returned. Of the thirty-four Army health nurses who replied, thirty-three include a maternal health program in the Army health nursing program. One Army health nurse replied that they had not developed a maternal health program under the present preventive medicine officer. On this basis, the study includes replies from thirty-three installations.

At two installations there are no hospitals. One installation has an antepartal clinic, and the patients are referred to a military hospital at another installation for delivery. At the other installation, the patients receive maternity care at another installation or at civilian facilities.

It is significant that the Chief of obstetrical service assists in planning the program at all the installations; whereas the nursing service is included in the planning at twenty-one installations and the preventive medicine officer at seven installations. This may indicate a lack of continuity in nursing care and a lack of interpretation of the Army health nursing program to the hospital nurses.

TABLE 1

PERSONNEL WHO ASSISTS THE ARMY HEALTH NURSE IN PLANNING THE MATERNAL HEALTH PROGRAM

Personnel	Affirmative Replies	
	Number	Percentage
Chief of obstetrics	12	36.4
Preventive medicine officer and chief of obstetrics	2	6.4
Preventive medicine officer, chief of obstetrics, and nurse supervisor, obstetrics	2	6.4
Preventive medicine officer, chief nurse, and volunteer registered nurse	1	3.
Preventive medicine officer, nurse supervisor obstetrics, and civilian public health nurse	1	3.
Preventive medicine officer, chief of obstetrics, nurse supervisor, obstetrics, and chief nurse	1	3.
Chief of obstetrics and nurse supervisor, obstetrics	5	15.
Chief of obstetrics, post surgeon, and chief nurse	1	3.
Chief of obstetrics, nurse supervisor, obstetrics, and chief nurse	3	9.4
Chief of obstetrics, nurse supervisor, obstetrics, and Red Cross	2	6.4
Chief of obstetrics, nurse supervisor, obstetrics, and clinic nurse	2	6.4
Chief of obstetrics, nurse supervisor, obstetrics, and nursery nurse	1	3.
Total	33	100

O'Malley and Heinse say ". . . key personnel should contribute to the development of the program both in terms of the philiosophy of care and the actual plan of care to be inaugurated. With cooperative planning there will be understanding participation and continuing evaluation of the program."[1]

The Army health nurse participates in the obstetrical staff meetings part of the time at three installations, never at two installations, and at four installations she is not invited to the staff meetings.

[1]Martha O'Malley and Carl T. Heinse, "Keys to Improvement in Hospital Service," Mod. Hospital, LXXIX (July, 1952), p. 73.

The remaining twenty-two installations do not have staff meetings. It is interesting to speculate why she is not invited or does not participate in the staff meetings at the six installations. Is it because there has been a poor interpretation of the role of the Army health nurse in maternal health and because other services are more pressing?

TABLE 2

ACTIVITIES OF THE ARMY HEALTH NURSE AS RELATED TO THE ANTEPARTAL CLINIC

Activity	Affirmative Replies	
	Number	Percentage
Responsible for clinic	3	9.3
Participates in clinic	24	72.7

At the three installations where the Army health nurse is administratively responsible for the antepartal clinic the following personnel assists her; surgical technician and volunteer at one installation, civilian practical nurse and volunteer at one installation, and medical specialist, Woman's Army Corps, at one installation.

The writer questions the advisability of having the Army health nurse responsible for the clinic. Gold et al[1] recommend that if the clinic is in the hospital the obstetrical nursing supervisor should be responsible for the clinic. This would give the Army health nurse more time for counseling patients and for other needed services.

[1]Gold, Lasty, and Wallace, Am. J. Pub. H. XL, p. 793.

TABLE 3

ACTIVITIES OF THE ARMY HEALTH NURSE
IN THE ANTEPARTAL CLINIC

Activity	Number of Affirmative Replies
Has conferences with patients	13
Takes histories and has conferences with patients	2
Takes histories, blood pressures and weights, and has conferences with patients	3
Takes histories, assists the doctors, and has conferences with the patients	1
Takes histories, blood pressures and weights, assists the doctor, and has conferences with the patient	3
Takes blood pressures and weights	1
Gives Salk vaccine	1
Total	24

Hilbert[1] recommends that public health nurses should not be weighing patients or taking blood pressures. She should be functioning in an educational capacity; otherwise her services are not needed in the clinic.

In a study by Lesser and Keane[2] they find that the nurse who spends much of her time in performing routine tasks has little satisfaction in her work, and this is a barrier to the furtherance of the nurse-patient relationship. A difference of opinion is expressed as later they say,

> The person who "takes care of" the patient symbolically demonstrates interest in her for her own sake, and so frees her to express any needs that she may have. Thus we find in areas of maternity care where patients and nurses have the least bodily contact, as in antepartal period, they rarely develop personal relationships, and emotional needs are most often unmet.[3]

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[1]Hilbert, PHN, XXXVIII, p. 211.

[2]Marion S. Lesser and Vera R. Keane, Nurse-Patient Relationships in a Hospital Maternity Service, (St. Louis: C. V. Mosby Co., 1956), p. 210.

[3]Ibid, pp. 211-212.

The Army health nurse at twenty-one installations report having individual conferences with patients in the antepartal clinic. These are divided as follows; at six installations with all patients, at nine installations with referred patients, at three installations with patients having first clinic appointments, at two installations with referred patients and brides from other countries, and at one installation with primiparas and multiparas with complications.

Army health nurses at nine installations report that they have individual conferences with patients on every clinic visit. At three installations a conference is held with all the patients, at one installation with primiparas, at two installations with brides from other countries and at two installations with some or if necessary.

At seven installations the individual conference is held before the patient sees the doctor, at three installations after the patient sees the doctor, and at ten installations the conference is held either time. The main purpose of the individual conference should be the determining factor in deciding when the conference should be held. Freeman[1] recommends that the conference be held after the patient sees the doctor in order to interpret his instructions and recommendations.

Group conferences are conducted in the antepartal clinic at nineteen installations. At four installations they are held during all clinic sessions, and at fifteen installations during clinic sessions for new patients. According to Freeman[2] group instructions are desirable because it saves nursing time, and "it almost always brings to the patients a broader understanding and skill since it allows them to learn

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[1]Freeman, p. 251.

[2]Freeman, p. 261.

from and influence one another."

When one considers the number of patients who are seen in the Army antepartal clinics and the amount of time the doctor and Army health nurse have with each patient, group discussion may be advisable and practical. The number of patients seen per hour varies from four to fifty. The median is twenty patients in an hour. The amount of time the doctor has with each patient varies from five minutes to twenty minutes. The median is eleven minutes.

Of the thirty-two installations which have an antepartal clinic, twenty-three report that the majority of the patients register for antepartal care during the first trimester. Nine installations report that the majority of the patients register for antepartal care in the second trimester. The patients who are apt to register for care in the last trimesters are reported as; multiparas at nineteen installations, multiparas and brides from other countries at one installation, primiparas, multiparas, and transfers from other installations at one installation, multiparas and transfers from other installations at two installations, and transfers from other installations at four installations.

The ones who report delayed registration by the patients who have transferred from another installation do not specify whether or not these patients received care at the previous installations.

This information indicates that early case finding and education about the need of antepartal care should be directed toward the multipara. It may also indicate that the multipara's experience with antepartal care during previous pregnancies has not been a pleasant and satisfying experience.

The Army health nurse makes home visits to antepartal patients at twenty-two installations. There are two no responses to this question.

TABLE 4

PRENATAL PATIENTS WHO HAVE HOME VISITS
BY THE ARMY HEALTH NURSE

Classification	Number of Affirmative Replies
All patients	2
Brides from other countries	2
Patients with complications	16
Patients with complications and brides from other countries	2
Total	22

Of the nine Army health nurses who report that they do not participate in the antepartal clinic, three report that patients are not referred to them for home visiting, one reports that all primiparas and patients with complications are referred to her, three report that patients with complications or other needs are referred to her, and two report that patients with complications and brides from other countries are referred to her for home visiting.

When one considers the number of patients who are registered for antepartal care, it becomes evident that the Army health nurse can not make home visits to all antepartal patients unless more nurses are assigned to the program. The number of patients registered in the antepartal clinic shows a range of 59 to 1300. The median is 350 patients.

As quoted previously, "Ideally, every antepartal patient should be visited in the home by a public health nurse to instruct and prepare the patient. If in this era of nursing shortage selection must be made, it is recommended that all patients with incipient serious complications be

visited in the home."[1]

Expectant parents' classes are conducted at twenty-eight installations and are being organized at three installations. The reasons given by the Army health nurses at the two installations where expectant parents' classes are not conducted are; classes are offered in the neighborhood, families live a great distance from the installation, and there are too many working mothers.

According to Kirchner[2] expectant parents' classes are an essential part of a complete maternity program.

TABLE 5

PERSONNEL RESPONSIBLE FOR ORGANIZING EXPECTANT PARENTS' CLASSES

Personnel	Affirmative Replies	
	Number	Percentage
Army health nurse	19	68.
Army health nurse and Red Cross	3	10.7
Army health nurse, Red Cross, and doctor	2	7.1
Army health nurse and doctor	2	7.1
Army health nurse and preventive medicine officer	1	3.6
Army health nurse and volunteer registered nurse	1	3.6
Total	28	100.

[1]Gold, Lasty, and Wallace, Am. J. Pub. H., XL, p. 796.

[2]Kirchner, Am. J. Pub. H., XLIII, p. 896.

TABLE 6

PERSONNEL INVOLVED IN TEACHING
EXPECTANT PARENTS' CLASSES

Personnel Involved	Number of Affirmative Replies
Army health nurse	5
Army health nurse and obstetrician	2
Army health nurse, obstetrician, and pediatrician	2
Army health nurse, dietitian, obstetrician and physiotherapist	2
Army health nurse, dietitian, obstetrician, and pediatrician	2
Army health nurse, dietitian, and physiotherapist	2
Army health nurse and pediatrician	1
Army health nurse and volunteer registered nurse	1
Army health nurse and preventive medicine officer	1
Army health nurse, dietitian, and obstetrician	1
Army health nurse, obstetrician, and volunteer registered nurse	1
Army health nurse, obstetrician, pediatrician, and psychiatrist	1
Army health nurse, obstetrician, dietitian, and head nurse, obstetrics	1
Army health nurse, obstetrician, pediatrician, and volunteer registered nurse	1
Army health nurse, obstetrician, dietitian, pediatrician, and psychologist	1
Army health nurse, dietitian, obstetrician, and psychologist	1
Army health nurse, obstetrician, dietitian, psychologist, physiotherapist, and nursery nurse	1
Obstetrician and volunteer registered nurse	1
No response	1
Total	28

It is significant that at twenty-two of the installations other disciplines participates in the teaching program. This agrees with the present day philosophy that other disciplines have much to contribute to the classes, and that nurses should not do all the teaching.

At two installations the class group determines the content for class discussion. At twenty-three installations the instructor uses an accepted outline for the classes. There are two nurses who do not indicate how the subject matter is determined.

Auerbach[1] reports that when the material is based and developed from the contributions of the group members, the members express their needs freely which opens the way for a discussion closely related to their primary concern.

TABLE 7

CLASSIFICATION OF PATIENTS WHO ATTEND EXPECTANT PARENTS' CLASSES

Patients	Number of Affirmative Replies
Mostly primiparas	7
Primiparas, some multiparas, brides from other countries, non-pregnant but interested	7
Primiparas and some multiparas	6
Primiparas, some multiparas, and non-pregnant but interested	3
Primiparas, brides from other countries, and non-pregnant but interested	1
Primiparas and non-pregnant but interested	1
Primiparas and brides from other countries	1
Primiparas, some multiparas, and brides from other countries	1
No response	1
Total	28

It is interesting to note that at twelve installations non-pregnant but interested women attend the expectant parents' classes. It is not indicated why these women are interested in the classes. Perhaps these are women who anticipate having children or have children.

The fathers are invited to attend the classes with the mothers at twenty installations. Separate classes are conducted for the fathers at two installations. At one of these the wives are invited to attend the classes with the fathers; even though she is attending the classes given for the mothers. At eleven installations many fathers attend and at nine installations few attend.

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[1]Auerbach, Am. J. Pub. H., XLVII, p. 185.

TABLE 8

PERCENTAGE OF EXPECTANT PARENTS WHO ATTEND EXPECTANT PARENTS' CLASSES

Percentage	Number of Installations Replying
0 - 4	3
5 - 9	4
10 - 14	5
15 - 19	1
20 - 24	1
25 - 29	1
30 - 34	2
35 - 49	0
50 - 54	2
Over 55 percent	2
No response	7
Total	28

It would be interesting to learn why some installations have a much higher percentage of parents attending the classes than is true of other installations. The range is from 0 - 4 to over 55 percent with a median of 10 - 14 percent.

TABLE 9

AGENCIES TO WHICH ARMY HEALTH NURSES REFER PATIENTS

Agency	Affirmative Replies	
	Number	Percentage
Red Cross	16	48.4
Red Cross and civilian social agency	13	39.2
Red Cross and Army social worker	2	6.4
Red Cross and Army Relief	1	3.
Civilian social agency	1	3.
Public health nursing service	25	75.7

It is interesting to note that at two installations patients are referred to the Army social worker and not to a civilian agency. Very

few installations have an Army social worker and one wonders if there would be less referrals to civilian agencies if all installations had social workers. Another question that arises is why at seventeen installations there are no referrals to civilian agencies. This could indicate that there is no social agencies in the area or that the Army health nurse is not aware of the community resources.

In eight instances patients living off the installation are not referred to the local public nursing service. None of these replies indicate that a public health nursing service is not available; although this might be the case. It is interesting that seven of these Army health nurses do not refer patients to the civilian social agencies.

Of the twenty-five installations where patients are referred to the local public health nursing service, five refer only those with complications.

The Army health nurse at twenty-seven installations report that they make home visits to patients living off the installation, five indicating that they visit within a limited area from the installation. Could this be true of the other nurses who are referring patients to the local public health nursing service and are also making home visits off the installation? If not, this may indicate a duplication of service. At the eight installations where the patients are not referred to the local public health nursing service the Army health nurse makes home visits off the installation.

TABLE 10

AVERAGE NUMBER OF DELIVERIES PER MONTH
AT ARMY INSTALLATIONS

Number	Number of Installations Replying
25 - 49	5
50 - 74	6
75 - 99	4
100 - 124	7
125 - 149	4
150 - 174	0
175 - 199	3
200 - 249	1
Over 250	1
Total	31

The range for the number of deliveries per month is 25 to over 250 with the median being 103.

The length of hospitalization after delivery varies from three to seven days. At five installations all patients are hospitalized three days; at three installations, three to four days; at six installations, four days; at two installations, four to five days and at one installation, six days. At one installation multiparas are hospitalized four days and primiparas five days; at one installation, multiparas five days, and primiparas six days; at one installation, multiparas five days and primiparas seven days. At one installation patients who are breast feeding their babies are hospitalized five days, and the patients who are not breast feeding their babies are hospitalized three days.

There is no indication of a correlation between the number of days of patients' hospitalization and the policy for making postpartal home visits.

TABLE 11

ACTIVITIES OF THE ARMY HEALTH NURSE
DURING THE POSTPARTAL PERIOD

Activity	Affirmative Replies	
	Number	Percentage
Has ward conference with patients	30	91.
Instructs patient in care of self and infant	26	79.
Makes home visits to postpartal patients	28	85.
Makes home visits before prematures are discharged	22	66.6

Of the thirty Army health nurses who report they have conferences with the patients on the wards, twelve state they have group conferences with individual conferences as needed, and six state they have conferences on a referral basis only.

The Army health nurse at ten installations indicates that she is responsible for instructing the mother in care of self and infant after discharge from the hospital. At sixteen installations they share the responsibility with the doctor, ward nurse, or nursery nurse.

TABLE 12

POSTPARTAL HOME VISITS MADE BY
THE ARMY HEALTH NURSE

Classification of Patients	Number of Installations Replying
All patients	6
Primiparas and referred patients	5
Primiparas, referred patients, and brides from other countries	2
Referred patients	13
Primiparas	2
Total	28

The Army health nurse at nineteen installations report that she gives nursing service to the postpartal patient after the six weeks postpartum examination if necessary. At three installations the patient is discharged from the Army health nursing service before the six weeks postpartum examination, and at five installations after the six weeks postpartum examination.

It is significant that three Army health nurses discharge the patient before the postpartum examination. Many patients do not realize the importance of this examination; thus, it is one of the responsibilities of the Army health nurse to explain the purpose of the examination and to encourage the patient to have it.

Of the twenty-two Army health nurses who make home visits before the discharge of the premature infant from the hospital, fifteen report they visit in all cases, and seven report they visit sometimes. It is recommended practice that public health nurses should visit the home before discharge of the premature infant to give instruction in care of the infant and to see if the home is suitable for the care of the premature infant. According to Prugh[1] an important aspect of these visits is to help the mother with her feelings of anxiety and guilt which are often associated with having a premature infant.

When one considers the average number of deliveries per month at Army installations (see Table 10) and that most installations have one Army health nurse, it becomes apparent that priorities must be determined for home visiting.

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[1]Dave G. Prugh, "Emotional Problems of Premature Infants' Parents", Nurse Outlook, I. (Aug., 1953), p. 462.

TABLE 13

ANALYSIS OF PERCENTAGE OF CASE LOAD AND ARMY HEALTH NURSES' TIME DEVOTED TO MATERNAL HEALTH

Percentage	Number of installations replying *	
	Case load devoted to maternal health	Army health nurses time in maternal health
0 - 4	3	0
5 - 9	0	1
10 - 14	1	3
15 - 19	1	2
20 - 24	1	6
25 - 29	0	1
30 - 34	5	2
35 - 39	0	6
40 - 44	4	3
45 - 49	0	0
50 - 54	3	3
55 - 59	0	1
60 - 64	2	1
65 - 69	2	0
70 - 74	1	1
75 - 79	4	0
80 - 84	1	0
Total	28	30

*Replies regarding caseload and time do necessarily represent the same installation.

The median for the maternity case load is forty percent, and the median for the time devoted to maternal health is thirty-three percent. To the writer this would appear to be consistent time and caseload allocation in the light of the age group distribution in the Army.

TABLE 14

PUBLIC HEALTH NURSING EXPERIENCE OF ARMY HEALTH NURSES PRIOR TO ENTERING THE ARMY

Type of Agency	Number of Army Health Nurses Replying
Official	8
Visiting Nurse	4
Visiting nurse and official	3
Official and school	3
Visiting nurse, official, and school	2
Visiting nurse and school	2
Visiting nurse, combination, and school	1
Official, and specialized	1
Combination and United States Public Health Service	1
Combination	1
Combination and coordinator in university school	1
Official, specialized	2
School	1
None	3
Total	33

The writer is unable to identify a relationship between the type of experience the Army health nurse had before entering the Army and her activities in the maternal health program.

IV. SUMMARY AND CONCLUSIONS

A study of the Role of the Army Health Nurse in the Maternal Health Program at Army Installations in the United States was done to learn how the Army health nurse contributes to the maternal health program, how much of her time is devoted to maternal health, who assists her in planning the program, her activities in the program, who receives care from her, and if a relationship can be identified between the type of experience she had prior to entering the Army and her activities in the maternal health program. This information was desired to give the writer a better understanding of the maternal health program and to aid her in future program planning.

Information was collected through a mail questionnaire sent to the Army health nurse at thirty-five installations in the United States. Replies were received from thirty-four installations.

Some of the related literature was reviewed as a basis for the preparation of the questionnaire and interpretation of the results.

The questionnaire returns indicate that a maternal health program is included in the Army health nursing program at thirty-three of the installations. The amount of time devoted to the program ranges from six percent to seventy-five percent of the Army health nurses work week. The median is thirty-three percent. Considering the proportion of the child-bearing age group in the Army population, this amount of time does not seem unreasonable.

The preventive medicine officer assists in planning seven percent of the programs, the nursing service assists in planning sixty-four percent, and the chief of obstetrics assists in planning all the programs. It is significant that the nursing service does not participate in planning all the programs. This may indicate a lack of continuity of nursing care and a lack of understanding of the Army health nursing program.

The reported activities of the Army health nurse in the antepartal clinic varies at the different installations. She is administratively responsible for the clinic at three installations, and she participates in the clinic at twenty-four installations. At thirteen of these installations her function is to have conferences with the patients; at nine installations she has conferences, takes blood pressures, weights or histories or assists the doctor, at two installations she takes blood pressures and weights, and gives Salk vaccine. This indicates that the Army health nurse at eleven installations is performing activities that could be done by the clinic nurse or auxiliary personnel. If these activities were done by other personnel it would give the Army health nurse more time to devote to counseling in the clinics and to making home visits.

Group conferences are held at nineteen installations. At fifteen of these the conference is held during clinic sessions for new patients and at four they are held during clinic sessions for all patients.

The Army health nurse makes home visits to antepartal patients at twenty-two installations and to postpartal patients at twenty-eight installations. She makes home visits before prematures are discharged from the hospital at twenty-two installations, of these fifteen state

they visit in all cases and seven state they visit sometimes.

Expectant parents' classes are conducted at twenty-eight installations and are being organized at three installations. The Army health nurse is responsible for organizing the classes at nineteen installations, and at nine installations the responsibility is shared with the Red Cross, a doctor or a volunteer registered nurse. The Army health nurse teaches all the classes at five installations, and at twenty-three installations other disciplines participate in the teaching program. This practice is the same as we see in civilian communities.

The Army health nurse at all the installations report that they refer patients to a social agency when a social problem exists; 48.4 percent refer to the Red Cross, 39.2 percent refer to the Red Cross and civilian agency, 6.4 percent refer to Red Cross and Army Relief, and 6 percent to Red Cross, Army Relief and civilian agency.

Referrals are made to the local public health nursing service at twenty-five installations. The Army health nurse makes home visits off the installation at twenty-seven installations. This may indicate a duplication of service unless some cooperative arrangement has been made with the local public health nursing service.

The Army health nurse has ward conferences with the patients at thirty installations. These conferences may be individual or group; twenty-four state they have group conferences, twelve of these state they have individual conferences when necessary, and six state they have conferences on a referral basis only.

The study indicates that at the majority of the installations the patients who receive care from the Army health nurse are those with complications. Of the twenty-one installations where individual

conferences are conducted in the antepartal clinic, only six have conferences for all patients, and only one indicates that conferences are held routinely with primiparas. Antepartal home visits are made to all patients at two installations, to patients with complications at eighteen installations, and to brides from other countries at four installations. Not one Army health nurse indicated that she routinely visited the primipara who did not have complications. Home visits to postpartum patients are made to all patients at six installations, patients with complications at nine installations and to primiparas at six installations.

The writer questions whether the Army health nurse is contributing as much as she might to maternal health. On what basis should patients be selected for Army health nursing service? Should thought be given to additional reasons for visiting or conferring with antepartal patients other than "complications"? Certainly, today's emphasis upon emotional needs and understanding support for the "normal" antepartal seems to be excluded by the "complications" approach.

The writer realizes that it is impossible with the present number of Army health nurses to give care to all maternity patients. To give adequate maternity care we must consider the preconceptional period as well as the maternity cycle. Thus, the writer would like to suggest that consideration be given to a study to determine the number of Army health nurses needed at an installation to give adequate family service.

The study did not indicate that there is a relationship between the type of experience the Army health nurse had prior to entering the Army and her activities in the maternal health program.

Although this study does not give the total picture of the maternal health program in the Army health nursing program, it has given the writer a better understanding of certain important aspects of it and will aid her in future program planning.

APPENDIX

EXHIBIT C

330 Oak Grove St.

Minneapolis 3, Minn.

17 February 1957

Army Health Nurse

Dear

According to my check list, I have not received your answer to my questionnaire concerning the Army health nursing program.

You are, I know, busy. Your reply, although not identified by name, contributes much to my study, and I hope to have complete returns.

If you have mislaid the questionnaire, please let me know and I shall be glad to send you another.

Thanking you for your assistance.

Sincerely,

Esther J. McNeil
Capt. A.N.C.

330 Oak Grove St.
Minneapolis 3, Minn.
5 March 1957

Army Health Nurse

Dear

In reviewing the answers on my questionnaire concerning maternal health, I find that one of the questions was misleading. Namely, "Approximately how many patients are registered in the antepartal clinic according to your last monthly report?"

The information which was desired for the study was the total number of antepartal patients who attended during one month. This relates to number of people, not number of visits. In trying to clarify this answer, please include carry over cases as well as new registrations for antepartal service for the month which you selected. The number which you approximated was ___.

I am enclosing a self addressed postal card for your reply.

I am sorry that the question was confusing, and I will appreciate your clarification of your situation.

Sincerely,

Esther J. McNeil
Capt. A.N.C.

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